

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): In a thermoplastic composition comprising a compounded blend of a polyester and a polycarbonate, the improvement comprising preparing the polyester in the presence of a titanium-containing catalyst compound in an amount of from about 1 to about 30 ppm elemental titanium and, optionally, an ester exchange catalyst in an amount of from about 1 to about 150 ppm of an active element utilized when an acid component of the polyester is derived from a diester of a dicarboxylic acid, with ppm based on the total weight of the polyester.

Claim 2 (original): The thermoplastic composition of claim 1 wherein the titanium-containing catalyst compound is present in an amount of from about 1 to about 20 ppm elemental titanium.

Claim 3 (original): The thermoplastic composition of claim 1 wherein the titanium-containing catalyst compound is present in an amount of from about 1 to about 15 ppm elemental titanium.

Claim 4 (original): The thermoplastic composition of claim 1 wherein the compounded blend further comprises a post-polycondensation phosphorus-containing compound in an amount of from about 0.01 to about 500 ppm elemental phosphorus, with ppm based on the total weight of the compounded blend.

Claim 5 (original): The thermoplastic composition of claim 4 wherein the phosphorus-containing compound is added after polycondensation in the preparation of the polyester and is present in an amount of from about 10 to about 350 ppm.

Claim 6 (original): The thermoplastic composition of claim 5 wherein the phosphorus-containing compound is present in an amount of from about 50 to about 150 ppm.

Claim 7 (original): The thermoplastic composition of claim 1 wherein the compounded blend further comprises a phosphorus-containing compound present in an amount of from about 10 to about 100 ppm, based on the weight of the polyester, and added during the preparation of the polyester prior to polycondensation.

Claim 8 (original): In a thermoplastic composition comprising a polymer mixture of from about 1 to about 99 weight percent of a polyester and from about 99 to about 1 weight percent of a polycarbonate, the improvement comprising the polyester comprising residues of (i) a titanium-containing catalyst compound in an amount of from about 1 to about 30 ppm elemental titanium, (ii) a pre-polycondensation phosphorus-containing compound in an amount of from about 1 to about 150 ppm elemental phosphorus and (iii) optionally, an ester exchange catalyst in an amount of from about 1 to about 150 ppm of an active element utilized when the acid component is derived from a diester of the dicarboxylic acid, with ppm based on the total weight of the polyester.

Claim 9 (original): The thermoplastic composition of claim 8 wherein the titanium-containing catalyst compound is present in an amount of from about 1 to about 20 ppm elemental titanium.

Claim 10 (original): The thermoplastic composition of claim 8 wherein the titanium-containing catalyst compound is present in an amount of from about 1 to about 15 ppm elemental titanium.

Claim 11 (original): The thermoplastic composition of claim 8 wherein the polyester further comprises residues of about 1 to about 10 ppm of at least one copolymerizable compound of a 6-arylamino-1-cyano-3H-dibenz[f,i]isoquinoline-2,7-dione or a 1,4-bis(2,6-dialkylanilino) anthraquinone in combination with at least one bis

anthraquinone or bis anthrapyridone(6-arylamino-3H-dibenz[f,i]isquinoline-2,7-dione) compound, wherein the compounds contain at least one polyester reactive group.

Claim 12 (original): The thermoplastic composition of claim 8 wherein the polymer mixture further comprises about from 0.01 to about 0.35 weight percent of a post-polycondensation phosphorus-containing compound, based on the total weight of the polymer mixture.

Claim 13 (original): The thermoplastic composition of claim 12 wherein the post-polycondensation phosphorus-containing compound is present in an amount of from about 0.05 to about 0.15 weight percent.

Claim 14 (original): The thermoplastic composition of claim 12 wherein the post-polycondensation phosphorus-containing compound is distearyl pentaerythritol diphosphite.

Claim 15 (original): The thermoplastic composition of claim 8 wherein the polymer mixture is a compounded blend.

Claim 16 (original): A molded article formed from the thermoplastic composition of claim 8.

Claim 17 (original): A film or sheet formed from the thermoplastic composition of claim 8.

Claim 18 (original): The thermoplastic composition of claim 8 wherein the polyester comprises (a) an acid component comprising repeat units from at least one aromatic, aliphatic, or alicyclic dicarboxylic acid, wherein the aromatic portion of said aromatic dicarboxylic acid has 6-20 carbon atoms and wherein the aliphatic or alicyclic portion of said aliphatic or alicyclic dicarboxylic acid has 3-20 carbon atoms, and b) a diol component comprising repeat units from at least one aliphatic, aliphatic ether, or cycloaliphatic diol having 2-20 carbon atoms.

Claim 19 (original): The thermoplastic composition of claim 18 wherein the acid component comprises repeat units from about 80 to 100 mole percent terephthalic acid, isophthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid or mixtures thereof and from 0 to about 20 mole percent of other dicarboxylic acid units having from about 4 to about 40 carbon atoms; and the diol component comprises repeat units from about 40 to 100 mole percent 1,4-cyclohexanedimethanol, from 0 to about 60 mole percent ethylene glycol, and from 0 to about 20 mole percent of other diol units having from 3 to about 12 carbon atoms; wherein the total mole percent of the acid component is equal to 100 mole percent and the total mole percent of the diol component is equal to 100 mole percent.

Claim 20 (original): The thermoplastic composition of claim 19 wherein the polyester comprises from about 95 to 100 mole percent of terephthalic acid, from about 58 to about 66 mole percent 1,4-cyclohexanedimethanol and from about 42 to about 34 mole percent of ethylene glycol.

Claim 21 (original): The thermoplastic composition of claim 19 wherein the polyester comprises 100 mole percent 1,4-cyclohexanedimethanol, from about 22 to about 30 mole percent isophthalic acid, and from about 78 to about 70 mole percent terephthalic acid.

Claim 22 (currently amended): In a thermoplastic composition comprising a miscible blend of:

- (a) about 1 to about 99 weight percent of a polyester comprising:
 - (i) an acid component comprising repeat units from about 80 to 100 mole percent terephthalic acid, isophthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid or mixtures thereof and from 0 to about 20 mole percent of other dicarboxylic acid units having from about 4 to about 40 carbon atoms, wherein the total mole percent of the acid component is equal to 100 mole percent,

and

(ii) a diol component comprising repeat units from about 40 to 100 mole percent 1,4-cyclohexanedimethanol, from 0 to about 60 mole percent ethylene glycol, and from 0 to about 20 mole percent of other diol units having from 3 to about 12 carbon atoms, wherein the total mole percent of diol component is equal to 100 mole percent;

and

(b) about 99 to about 1 weight percent of a polycarbonate of 4,4-isopropylidenediphenol;

the improvement comprising the polyester comprising (i) catalyst residues of (i) a titanium-containing catalyst compound in an amount of from about 1 to about 20 ppm elemental titanium, (ii) catalyst residues of a pre-polycondensation phosphorus-containing compound in an amount of from about 1 to about 150 ppm elemental phosphorus, (iii) from about 1 to about 10 ppm of at least one copolymerizable compound of a 6-arylamino-1-cyano-3H-dibenz[f,i]isoquinoline-2,7-dione or a 1,4-bis(2,6-dialkylanilino) anthraquinone in combination with at least one bis anthraquinone or bis anthrapyridone(6-arylamino-3H-dibenz[f,i]isquinoline-2,7-done) compound, wherein the compounds contain at least one polyester reactive group; and (iv) optionally, an ester exchange catalyst in an amount of from about 1 to about 150 ppm of an active element utilized when the acid component is derived from a diester of the dicarboxylic acid, with ppm based on the total weight of the polyester.

Claim 23 (original): The thermoplastic composition of claim 22 wherein the polyester comprises from about 95 to 100 mole percent of terephthalic acid, from about 58 to about 66 mole percent 1,4-cyclohexanedimethanol and from about 42 to about 34 mole percent of ethylene glycol.

Claim 24 (original): The thermoplastic composition of claim 22 wherein the polyester comprises 100 mole percent 1,4-cyclohexanedimethanol, from about 22 to about 30 mole percent isophthalic acid, and from about 78 to about 70 mole percent terephthalic acid.

Claim 25 (original): The thermoplastic composition of claim 22 wherein the titanium-containing catalyst compound is present in an amount of from about 1 to about 15 ppm elemental titanium.

Claim 26 (original): The thermoplastic composition of claim 22 wherein the thermoplastic composition further comprises about from 0.01 to about 0.35 weight percent of a post-polycondensation phosphorus-containing compound, based on the total weight of the blend.

Claim 27 (canceled)

Claim 28 (original): A molded article formed from the thermoplastic composition of claim 22.

Claim 29 (original): A film or sheet formed from the thermoplastic composition of claim 22.

Claim 30 (original): In a thermoplastic composition comprising a miscible blend of from about 1 to about 99 weight percent of a polyester comprising an acid component comprising repeat units from terephthalic acid, isophthalic acid, and mixtures thereof and a diol component comprising repeat units from about 40 to 100 mole percent 1,4-cyclohexanedimethanol and about 0 to about 60 mole percent ethylene glycol, based on 100 mole percent acid component and 100 mole percent diol component, and from about 99 to about 1 weight percent of a polycarbonate of 4,4-isopropylidenediphenol, the improvement comprising:

- (1) preparing the polyester in the presence of a catalyst consisting essentially of (i) a titanium-containing catalyst compound in an amount of about 1 to about 15 ppm elemental titanium, (ii) a pre-polycondensation phosphorus-containing compound in an amount of about 45 to about 100 ppm elemental phosphorus, (iii) from about 1 to about 5 ppm of at least one copolymerizable compound of a

6-arylamino-1-cyano-3H-dibenz[f,ij]isoquinoline-2,7-dione or a 1,4-bis(2,6-dialkylanilino) anthraquinone in combination with at least one bis anthraquinone or bis anthrapyridone(6-arylamino-3H-dibenz[f,ij]isquinoline-2,7-dione) compound, wherein the compounds contain at least one polyester reactive group, and (iv) optionally, an ester exchange catalyst in an amount of from about 10 to about 65 ppm of an active element utilized when the acid component is derived from a diester of the dicarboxylic acid, with ppm based on the total weight of the polyester;

and

(2) the miscible blend comprising from about 0.05 to about 0.15 weight percent of a post-polycondensation phosphorus-containing compound selected from the group consisting of an aliphatic phosphite compound, aromatic phosphite compound or a mixture thereof, based on the total weight percent of the blend.

Claim 31 (original): A process for preparing a blend of a polyester and a polycarbonate comprising the steps of:

- (a) producing a polyester comprising the steps of:
 - (i) reacting 100 mole percent of a diacid, or ester derivative thereof, of at least one aromatic, aliphatic, or alicyclic dicarboxylic acid, wherein the aromatic portion of said aromatic dicarboxylic acid has 6-20 carbon atoms and wherein the aliphatic or alicyclic portion of said aliphatic or alicyclic dicarboxylic acid has 3-20 carbon atoms, and 100 mole percent of a diol comprising at least one aliphatic, aliphatic ether, or cycloaliphatic diol having 2-20 carbon atoms at a temperature and pressure sufficient to effect esterification for the diacid or ester exchange for the ester derivative;

and

- (ii) polycondensing the product of step (i) at temperatures and pressures sufficient to effect polycondensation in the presence of a titanium-containing catalyst compound in an amount of from about 1 to

about 30 ppm elemental titanium, with ppm based on the total weight of the polyester;

and

(b) compounding from about 1 to about 99 weight percent of the polyester of step (a) with from about 99 to about 1 weight percent of a polycarbonate to form a blend, with the weight percent based on the total weight percent of the blend.

Claim 32 (original): The process of claim 31 wherein the titanium-containing compound of step (a)(ii) is present in an amount of from about 1 to about 20 ppm elemental titanium.

Claim 33 (original): The process of claim 31 wherein the titanium-containing compound of step (a)(ii) is present in an amount of from about 1 to about 15 ppm elemental titanium.

Claim 34 (original): The process of claim 31 wherein a pre-polycondensation phosphorus-containing compound is added to step (a)(ii) in an amount of from about 1 to about 150 ppm elemental phosphorus.

Claim 35 (original): The process of claim 31 wherein the diacid comprises from about 80 to about 100 mole percent terephthalic acid, isophthalic acid, or mixtures thereof and the diol comprises from about 40 to 100 mole percent 1,4-cyclohexanedimethanol and about 0 to about 60 mole percent ethylene glycol, based on 100 mole percent diacid and 100 mole percent diol.

Claim 36 (original): The process of claim 31 wherein step (b) a post-polycondensation phosphorus-containing compound is compounded with the polyester and the polycarbonate at an amount of from about 0.1 to about 0.35 weight percent based on the total weight percent of the blend.

Claim 37 (original): The process of claim 31 wherein step (b) a post-polycondensation phosphorus-containing compound is compounded with the polyester and the polycarbonate at an amount of about 0.05 to about 0.15 weight percent based on the total weight percent of the blend.

Claim 38 (original): The thermoplastic composition of claim 37 wherein the post-polycondensation phosphorus-containing compound is distearyl pentaerythritol diphosphite.

Claim 39 (original): A process for preparing a thermoplastic composition comprising the step of compounding:

- (a) from about 1 to about 99 weight percent of a polyester comprising:
 - (i) an acid component comprising repeat units from about 80 to 100 mole percent terephthalic acid, isophthalic acid, and mixtures thereof, based on 100 mole percent acid component;
 - (ii) a diol component comprising repeat units from about 40 to 100 mole percent 1,4-cyclohexanedimethanol and about 0 to about 60 mole percent ethylene glycol, based on 100 mole percent diol component;
- and
- (iii) residues of a titanium-containing catalyst compound in an amount of from about 1 to about 20 ppm elemental titanium, a pre-polycondensation phosphorus-containing compound in an amount of from about 1 to about 100 ppm elemental phosphorus, and optionally, an ester exchange catalyst in an amount of from about 1 to about 150 ppm of an active element utilized when the acid component is derived from a diester of the dicarboxylic acid, with ppm based on the total weight of the polyester.

and

- (b) from about 99 to about 1 weight percent of a polycarbonate.

Claim 40 (original): The process of claim 39 wherein the polyester comprises from about 95 to 100 mole percent of terephthalic acid, from about 58 to about 66 mole

percent 1,4-cyclohexanedimethanol and from about 42 to about 34 mole percent of ethylene glycol.

Claim 41 (original): The process of claim 39 wherein the polyester comprises 100 mole percent 1,4-cyclohexanedimethanol, from about 22 to about 30 mole percent isophthalic acid, and from about 78 to about 70 mole percent terephthalic acid.

Claim 42 (original): The process of claim 39 wherein the titanium-containing compound is present in an amount of from about 1 to about 15 ppm elemental titanium.

Claim 43 (original): A polyester composition having an inherent viscosity of from about 0.6 to about 1.2 dl/g measured at 25°C in a solvent mixture consisting of 60% by weight phenol and 40% by weight tetrachloroethane and the polyester comprising:

- (a) an acid component comprising repeat units from terephthalic acid, isophthalic acid, and mixtures thereof;
- (b) a diol component comprising repeat units from about 40 to 100 mole percent 1,4-cyclohexanedimethanol and about 0 to about 60 mole percent ethylene glycol;

and

- (c) catalyst residues consisting essentially of (i) a titanium-containing catalyst compound in an amount of about 1 to about 15 ppm elemental titanium, (ii) a pre-polycondensation phosphorus-containing compound in an amount of about 45 to about 100 ppm elemental phosphorus, (iii) from about 1 to about 5 ppm of at least one copolymerizable compound of a 6-arylamino-1-cyano-3H-dibenz[f,ij]isoquinoline-2,7-dione or a 1,4-bis(2,6-dialkylanilino) anthraquinone in combination with at least one bis anthraquinone or bis anthrapyridone(6-arylamino-3H-dibenz[f,ij]isquinoline-2,7-dione) compound, wherein the compounds contain at least one polyester reactive group, and (iv) optionally, an ester exchange catalyst in an amount of from about 10 to about 65 ppm of an active element utilized when the acid component is derived from a diester of the dicarboxylic acid;

wherein the acid component is based on 100 mole percent and the diol component is based on 100 mole percent and ppm are based on the total weight of the polyester.

Claim 44 (original): The thermoplastic composition of claim 43 wherein the polyester comprises from about 95 to 100 mole percent of terephthalic acid, from about 58 to about 66 mole percent 1,4-cyclohexanedimethanol and from about 42 to about 34 mole percent of ethylene glycol.

Claim 45 (original): The thermoplastic composition of claim 43 wherein the polyester comprises 100 mole percent 1,4-cyclohexanedimethanol, from about 22 to about 30 mole percent isophthalic acid, and from about 78 to about 70 mole percent terephthalic acid.